

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: December 24, 1996  
Date Received: December 19, 1996  
Project: 7238, Metro Self Monitor, PO# M55593  
Date Samples Extracted: December 20, 1996  
Date Extracts Analyzed: December 20, 1996

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, ZINC**

**USING METHOD 6010**

**Samples Processed Using Method 3005A**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M55593	0.31	0.24	0.30	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 74642 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.31	0.28	10	0-20
Copper	mg/L (ppm)	0.24	0.22	9	0-20
Nickel	mg/L (ppm)	0.30	0.28	7	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.31	92	90	80-120	2
Copper	mg/L (ppm)	5	0.24	96	93	80-120	3
Nickel	mg/L (ppm)	10	0.30	90	89	80-120	1
Zinc	mg/L (ppm)	5	<0.05	91	90	80-120	1

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS MSD		Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	96	96	80-120	0
Copper	mg/L (ppm)	5	99	100	80-120	1
Nickel	mg/L (ppm)	10	95	96	80-120	1
Zinc	mg/L (ppm)	5	94	95	80-120	1

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

12NJ AI  
12.19.96  
11:15

Send Report To: Company Alaskan Copper Works Contact GERALD Thompson  
Address 628 Haines St  
City, State, Zip Seattle WA 98134  
Phone # (206) 382-8379 FAX # (206) 382-4309 Date 12-18-96

[illegible]AKC-0011846

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Beth M. Albertson, M.S.  
Bradley T. Benson  
Kelley D. Wilt

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044

December 24, 1996

INVOICE # 96ACU1224-1  
DUPLICATE COPY

Accounts Payable  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

RE: Project 7238, Metro Self Monitor, PO# M55593: Results of testing requested  
by Gerry Thompson, Project Manager for material submitted on December  
19, 1996.

1 water sample analyzed for  
Chromium, Copper, Nickel, Zinc  
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due .....

\$ 65.00



FRIEDMAN & BRUYA, INC.

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December 24, 1996

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

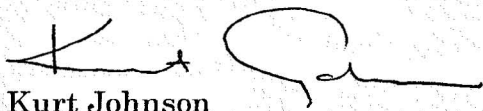
Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 19, 1996 from your 7238, Metro Self Monitor, PO# M55593 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson  
Chemist

keh  
Enclosures  
ACU1224R.DOC